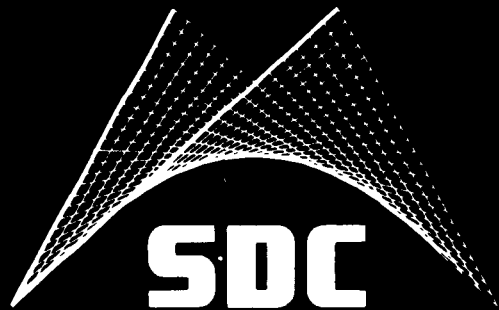


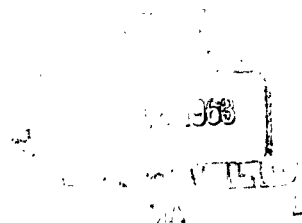
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System Design in the Bassett High School

1 April 1963



# TECHNICAL MEMORANDUM

(TM Series)

This document was produced in connection with a research project sponsored in the public interest by the System Development Corporation.

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System Design in the Bassett High School

by

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John F. Cogswell

1 April 1963

SYSTEM

DEVELOPMENT

CORPORATION

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SANTA MONICA

CALIFORNIA

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### BACKGROUND

In April 1962, a working arrangement was effected between the Bassett School District, in eastern Los Angeles County, and Brigham Young University for planning and establishing a high school which differs radically from the existing pattern for secondary schools. The new Bassett High School, which will admit its first class in 1964, will provide a greater opportunity for individual progress than is typical in high schools today. This opportunity will be provided through the Continuous Progress Plan, developed and partially tested by Dr. Edwin Read at Brigham Young University Laboratory School (Read, 1963). The Continuous Progress Plan deals primarily with such instructional problems as curriculum planning and materials development. The plan makes extensive use of small-group instruction to introduce new concepts and of both programmed and traditional learning materials to permit each student to progress at his individual rate. The current plan is for students to spend from 50 to 70 per cent of their time in individual study carrels.

In November 1962, System Development Corporation, as part of its contribution to the public welfare, became a member of the planning team for Bassett High School, donating the services of members of its Educational Research and Development staff. This staff is working on the analysis and design of the information-processing system for Bassett High School. The new school's radical departure from traditional structure, procedures, and communication channels necessitates careful analysis of the plan to locate possible weaknesses and inconsistencies, and to determine optimum organization and procedures. SDC's contribution to the planning of Bassett High School will consist of (1) making a complete, graphic description of the school via logical flow charts which will show operations, decisions and interactions; (2) constructing and operating a computer model of the school; (3) analyzing the results of the flow charting and simulation efforts; and (4) making final recommendations for the system and its implementation. Brigham Young University personnel will do the curriculum planning and the materials selection and preparation.

### OBJECTIVES OF THE SYSTEM DEVELOPMENT CORPORATION EFFORT IN BASSETT HIGH SCHOOL PLANNING

In the transition from the lock-step arrangement of current high schools to a plan in which a high degree of individual progress is made possible, major changes in organizational structure and communication channels are required. This departure from the familiar structure and channels will necessitate careful analysis of the new plan to determine optimum organization and procedures. SDC's analysis and design activity for the Bassett High School has the following objectives:

1. Provide a formal statement of procedures.

This objective will be accomplished by making a complete description of the school. Logical flow charts will be made of all phases, showing operations, decisions and interactions. This procedure will provide the means for determining what information is needed and by whom, where the information is generated, who makes decisions and to whom these decisions must be transmitted.

2. Define new roles for school personnel.

In a traditional school, the personnel have relatively well-defined roles, but many advocates of educational innovations state that such innovations will "free the teacher for other activities." Critics suggest that the new roles created by these activities have not been adequately defined. A prime objective of the analysis of any school system should be to define roles essential for successful operation of that system. Such definition will be accomplished for the Bassett High School.

3. Provide information on characteristics of the school.

Critics of educational television and programmed learning have expressed fear that, if these techniques are applied extensively in a school, an unhealthful reduction in the amount and type of teacher-pupil and pupil-pupil interaction will result. This system analysis of the Bassett High School will investigate the extent to which this and other reservations concerning educational innovations are justified and will explore ways of adjusting for any problems which become apparent.

4. Provide information on arrangement of space.

Traditional high schools are typically built with a number of similar classrooms to house students in groups that vary little in size, a few administrative offices, a gymnasium, a small library, and a few additional rooms of varying sizes and purposes. Bassett is being built differently. This system analysis will provide information on probable uses of the space provided and suggest possible alternative arrangements and utilization.

5. Provide estimates of characteristics of graduating students.

At the present time, most students are annually promoted from grade to grade and almost all students complete high school in the age range 17-19. These graduating students have diverse achievements in the various curricular areas, and this diversity is rather well known. If major changes are made in schools -- for example, permitting students to proceed at rates determined by their progress -- the characteristics of the graduating students may change radically. Age may become much more variable. On the other hand, if students are permitted to spend sufficient time to master each concept in turn,

as at Bassett, a marked reduction in range of achievement among graduates is possible. An objective of the system analysis is to provide information on possible changes in characteristics of graduating students.

6. Describe applications of data-processing equipment.

As flexibility is increased in school programs, student control problems increase since the teacher no longer will provide an exact schedule to which each student must adhere. Since student control problems will be increased, recent data-processing equipment will find application. This analysis will determine and describe ways in which use of such equipment can help solve problems.

7. Recommend modifications in the planned system.

Until a complete, logical flow-charting of the new school's operation is available, there can be no assurance that the system is internally consistent; in fact, inconsistencies are almost certain to appear. From analysis of the flow-charting, then, recommendations will be made for changes in the planned system.

8. Design an integrated information processing and retrieval system.

When the problems of management, evaluation, and control in the Bassett School are taken into consideration, it is apparent that the success of the school in obtaining its objectives will rest, in part, upon the availability of an advanced information processing and retrieval system.

#### PROCEDURES IN SDC'S BASSETT HIGH SCHOOL CONTRIBUTION

The analysis of a system normally begins with preparation of an operational statement of goals; for Bassett High School this step has been largely completed by the Bassett School District and Brigham Young University personnel.

The second major step in conducting a system analysis of an educational institution is to develop a descriptive model. The system thus described must be so designed as to permit achieving the stated goals. Thus, the initial description must be ideal oriented and must be divorced from restrictions imposed by reality, as reality is viewed by the typical practitioner. This escape from reality is necessary because, when restrictions to thinking are applied early in the analysis process, real creativity of solution may be prohibited.

The removal of external restrictions does not imply that there is no need for internal consistency of the model. The reverse is true. As normal restrictions to planning are removed and the designer freed to think creatively, the danger of planning a system in which the component parts are not compatible is materially increased. To insure internal consistency and to permit close

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scrutiny of the model, logical flow charts must be constructed. These flow charts should show channels of communication and should depict the decision-making apparatus.

The complete, logical flow-charting of a school and an analysis of these charts serves as the prelude to a more complete study via computer simulation (Harman, 1961). Computer simulation enables manipulation of the "school" and gives information about it that otherwise would not be available until the school was in actual operation. Thus the simulation effort eventually saves both time and money.

To permit study of the Bassett High School through simulation, a flexible model will be constructed (Egbert, 1962). This will be facilitated through use of procedures developed at System Development Corporation (Bennet, et al., 1962; Lackner, 1962; Rome and Rome, 1962). The model will involve computer representation of students, teachers and other school personnel, curriculum, space, equipment, etc.

The simulation phase of the analysis will involve determining important variables in the system, preparing specifications for a computer model, constructing the model, checking out the model, obtaining data from its operation, and analyzing and evaluating the data.

When the simulation study indicates that the model is internally consistent and is constructed of compatible processes and subsystems, the model will be ready for documentation. Before this step can be taken, however, new terms and concepts must be carefully defined. As stated earlier, the designer must initially have an ideal orientation, unfettered by restrictions of reality. Not only should he avoid concern with cost and availability of personnel and equipment, but also with present types of personnel, positions, equipment, etc. Temporarily, he should eliminate from his vocabulary such terms as classroom, laboratory, desk, textbook, library, counselor, and even teacher. Because of the restricting associations of these terms, they limit the designer's ability to revise his thinking. On the other hand, when the model is ready for documentation, a description must be prepared for materials, equipment, facilities, and personnel. At this stage new organizing concepts must be developed and terms applied to them. For example, in a new system, the term "teacher" may describe a position in which the person performs a great many different activities, some of them almost unrelated in content, action, or objective to the traditional notion of teacher. Although some former terms will still be applicable, new terms to describe activities, materiel, and positions may have to be developed.

#### PROGRESS IN SDC'S BASSETT HIGH SCHOOL CONTRIBUTION

SDC's plan of attack for analyzing and designing the information-processing system for Bassett High School involves:

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1. Becoming generally familiar with the planned program.
2. Describing, via flow diagrams, (a) student movement through an academic area, language arts, and (b) the concomitant operation for the Counseling Service.
3. Establishing the general accuracy of the initial descriptions of the language arts program and the Counseling Service.
4. Analyzing and redesigning the language arts and Counseling Service subsystems, preserving the roles they play in the total system but improving their design from an information-processing-system standpoint.
5. Repeating steps 2, 3 and 4 for each of the other academic areas.
6. Analyzing and, as necessary, redesigning the total high school system.
7. Simulating and studying the system.
8. Documenting the entire analysis and design procedure and the conclusions to indicate how they meet the objectives described earlier in this report.

At the present time step 1 has been completed, steps 2, 3 and most of step 4 have been finished for the Counseling Service, and step 2 has been largely completed for language arts.

To give a better picture of the actual nature of the analysis and design, brief descriptions are presented below of the work being done under step 2 for the language arts program and under step 4 for the Counseling Service.

#### Description of a Part of the Language Arts Program

As an attempt is made to describe the operation of the subsystems of the Bassett High School, one first discovers that they are much more complex than in a traditional high school. One next discovers that describing the intended program involves a great deal of design, partially because some steps which are being followed at the Brigham Young University Laboratory School have not been formalized or will not be appropriate at Bassett. For this reason, even the procedure of a student entering the language arts program, as described below, reflects considerable design effort.

#### General Discussion of the Language Arts Program.

While provision is made for flexibility in course offering under the Continuous Progress Plan, the following courses have been projected as being an appropriate minimum in a high school language arts program.



<u>Grade</u>	<u>Course</u>	<u>Students</u>
10	American Literature and Communication Skills	All
11	English Literature and Communication Skills	All
10 or 11	Journalism	10 per cent
12	World Literature	20 per cent

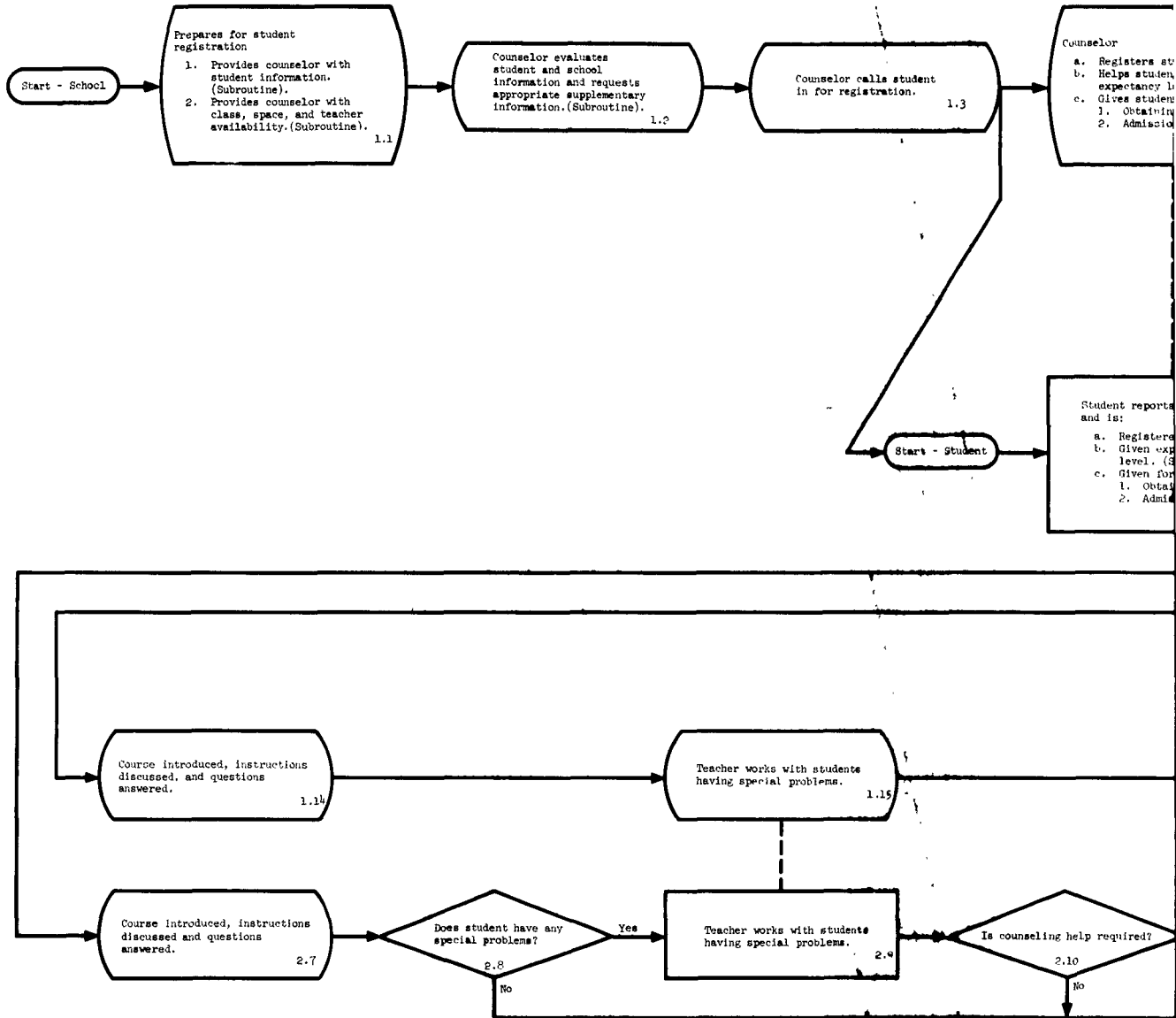
From the standpoint of development of the Continuous Progress Plan, the greatest amount of work has been completed on the basic grammar-literature sequence represented by the courses designated "...Literature and Communication Skills." Each of these courses has three parts to it--a section on grammar, one on literature and, for those students who need remedial work of this nature, one on reading and work-study skills. Unless a student particularly needs remedial work, he may begin a "...Literature and Communication Skills" class with the first unit in any one of the sections. He may work on the sections concurrently or individually but is not permitted to get a great deal farther along in one section than he is in another.

The language arts curriculum is academically basic. For this reason student progress in language arts will be closely monitored. Those failing to achieve as expected will receive special attention.

#### Entrance of a Student into the Language Arts Program.

Any system can be viewed from several different frames of reference. For example, a factory can be studied from the standpoint of the manager, the employee, the person who provides raw materials or purchases finished products, or even from the standpoint of the plant, the equipment, or the material as it moves through the plant and becomes a finished product. Obviously, different purposes are served when the system is viewed from one frame of reference than when it is studied from another. Because of the objectives sought and the problems involved, we have chosen to view this system from the standpoints both of the "deciding" and "acting" school personnel or equipment, and of the student. Thus in Figure 1, a flow diagram showing the process of a student entering the Language Arts curriculum, two strands are given--one for the school and one for the student. In various places these strands parallel, feed, and control each other. For example, step 1.3, the third step in the "school" strand, represents the counselor calling the student in for registration. This step is the only one through which a student may begin his program. This control is indicated by a solid line from 1.3 down to the student strand.

Steps 1.4 and 2.1 are parallel and represent the same activity, registration of the student, taken from two different standpoints. The parallel nature of the steps is shown by the arrowless, dashed line.



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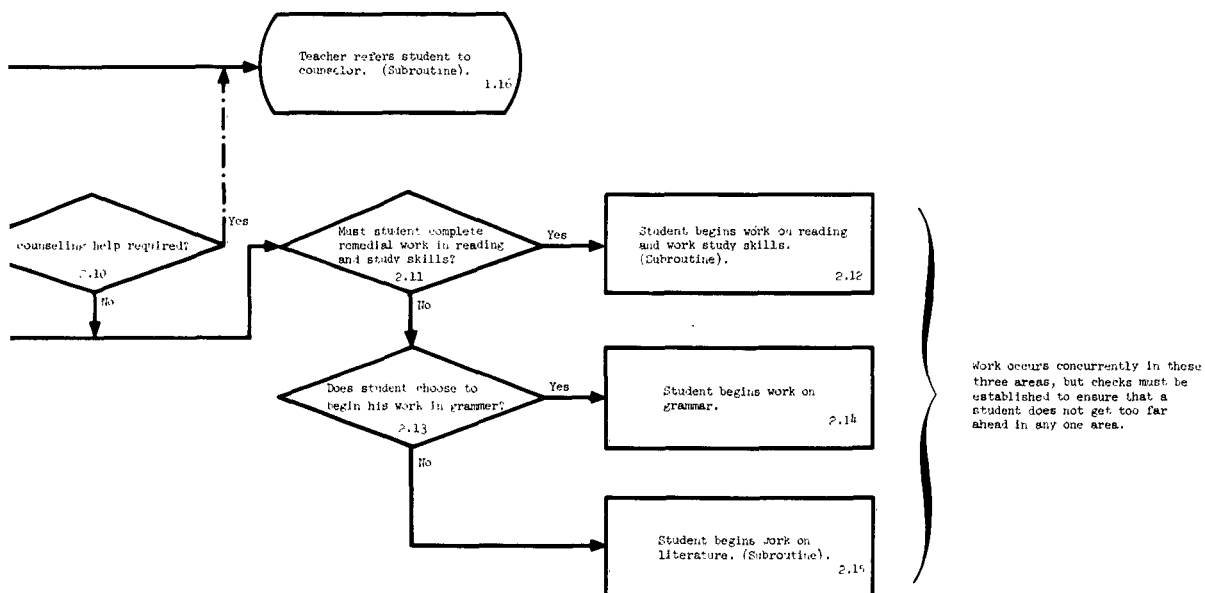
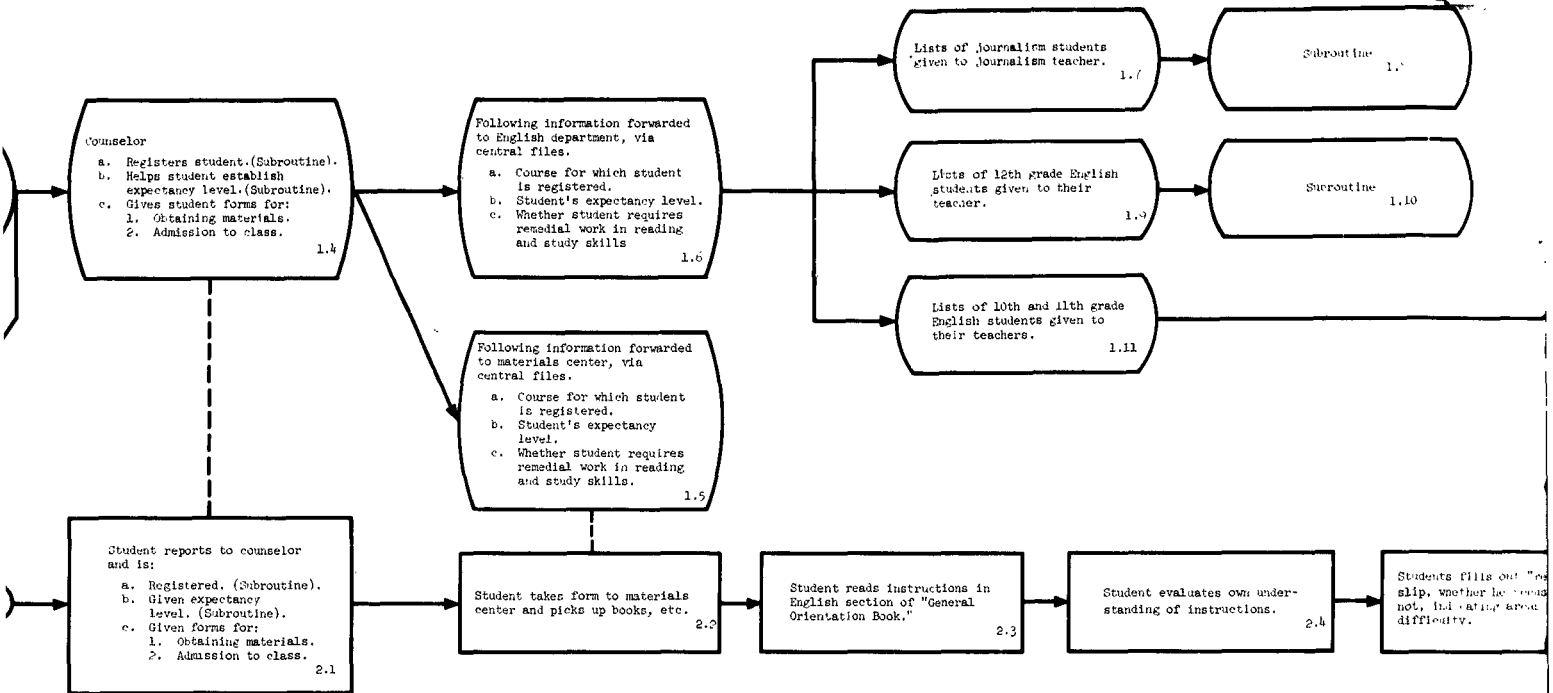


Figure 1. Flow D

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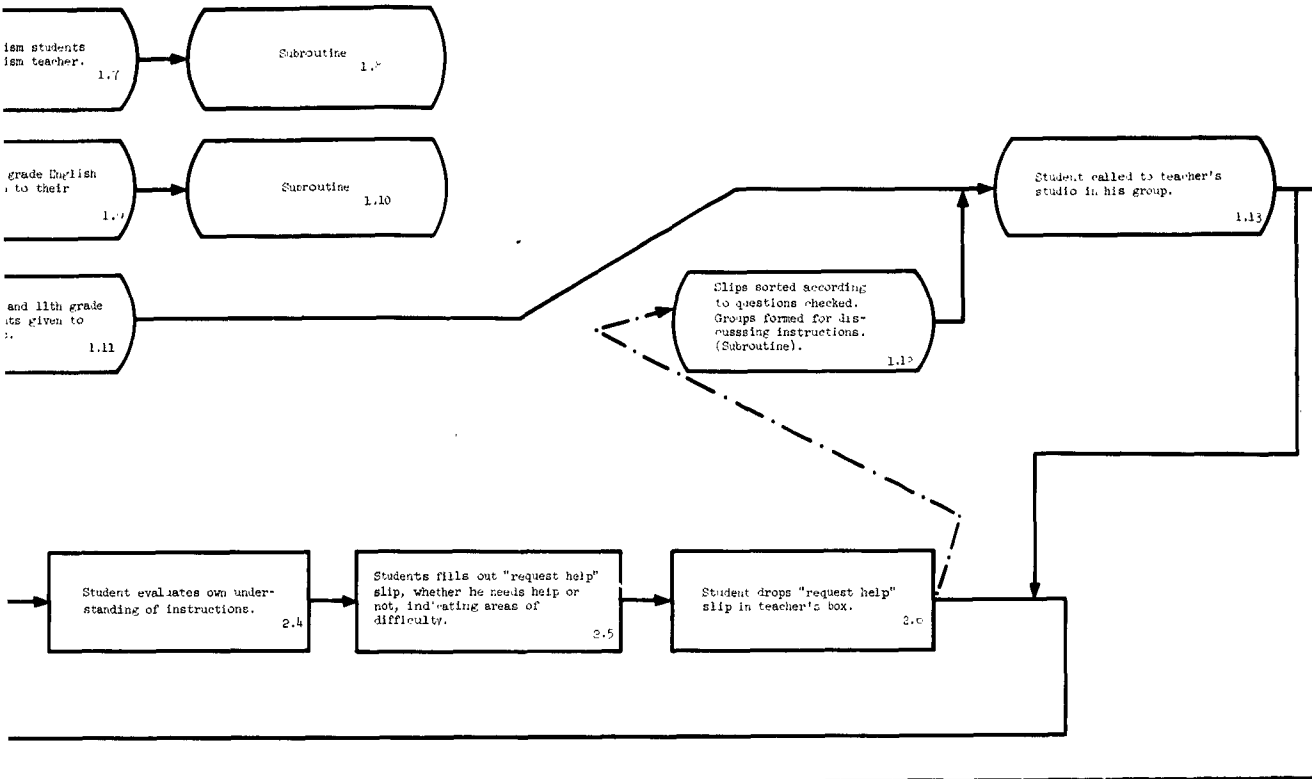


Figure 1. Flow Diagram for a Student Entering the Language Arts Program

Figure 1. Flow Diagram for a Student Entering the Language Arts Program

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Student step 2.6, representing the student turning in a "request help" slip, feeds school step 1.12, representing sorting the slips and forming groups for instruction purposes. This feeding process is depicted by a dash-dot line.

Progress Through Figure 1.

As has been stated above, Figure 1 illustrates the manner in which a student enters the Language Arts curriculum. Strand number one, in boxes with rounded ends, shows the school decisions and processes; strand number two, in rectangular boxes, shows student decisions and activities.

Certain of the steps, for example 1.1, represent entire subroutines. Where this is the case, the word "subroutine" appears in the box.

Progress through the process shown in Figure 1 is as follows:

1. The school prepares for student registration by assembling appropriate student and school information and giving this information to the counselor (1.1).
2. After reviewing the available information, the counselor requests additional information as needed (1.2).
3. The counselor calls the student in for registration (1.3).
4. The student appears and is registered, gets his expectancy level and is given forms for obtaining course materials and for admission to class (1.4 and 2.1).
5. Counselor forwards appropriate information, via central files, to the Language Arts Department and the materials center (1.5 and 1.6).  
The student takes his form to the materials center and secures his books and other course materials (2.2).
6. Lists of students in various classes are given to the respective classes (1.7, 1.9, and 1.11).
7. Student reads instructions in Language Arts section of "General Orientation Book" (2.3), evaluates his own understanding of the instructions (2.4), fills out "request help" slip indicating any areas of difficulty (2.5), and drops this slip in teacher's box (2.6).
8. The "request help" slips are sorted according to questions checked, and groups are formed for discussing instructions (1.12).
9. Groups of students are called in to teacher's studio (1.13).
10. The course is introduced, instructions are discussed and questions are answered (1.14 and 2.7).
11. If the student has special problems (2.8), the teacher helps him (1.15 and 2.9). If further help is required (2.10), the teacher refers the student to the counselor (1.16).

12. If the student does not have special problems (2.8), he is assigned remedial work or begins his literature or grammar sequence depending on his qualifications and interests (2.11, 2.12, 2.13, 2.14, and 2.15).

#### Points of Interest in Figure 1.

Although a number of general points of interest are raised by Figure 1, the following three are of particular note.

Decisions. The only decision points given specific recognition in Figure 1 are steps 2.8, 2.10, 2.11, and 2.13 in the student strand. This is not to imply that decisions are not made in the school strand. For example, in step 1.2 the counselor must decide for each student whether additional information is needed. However, these decisions will be shown in the subroutine which gives a specific description of this general step.

Information Processing. A large amount of information processing is implied in Figure 1. Steps 1.1 and 1.2 assume that the counselor has ready access to student, class, space, and teacher information. Steps 1.5 and 1.6 assume that the counselor can feed information to a central file which will accept, process, store, and then forward appropriate parts of the information to those needing it. Steps 1.12 and 1.13 are based on the assumption of information-processing equipment being available for facilitating formation of appropriate groups of students.

Surveillance and Detection Function. The surveillance and detection function is not an integral part of the subsystem partially described in Figure 1 and thus is not depicted. However, this subsystem cannot operate effectively without a surveillance and detection system to track student progress and report potential problems to responsible persons.

An example of a general rule which applies here is that any time the school "tells" a student to do something, such as to "report to counselor for registration," provision must be made for follow-up to ensure that the student does report and complete the registration process. This follow-up would be an aspect of the surveillance and detection function.

#### Initial Steps in Design of a Guidance Surveillance and Detection System

The counseling function, as it operates in the Continuous Progress Plan, does not appear to maximize the use and processing of information. More efficient operation would be possible if the following factors were taken into consideration:

Frequent sensing or evaluating to determine whether students are meeting the expectations set for them. The whole procedure having to do with expectations is very important to the Continuous Progress Plan. First, setting the

expectancy for the individual student seems to be aimed at getting him to use his full potential in learning. Although the basis used for setting the expectancy (scores on standard achievement tests), and the rates and levels of performance set for individual students require further consideration and a continued research effort, these measures are a clear attempt to use information (in this case test data) to set the expectancy. There is a need to consider how more extensive information can be collected and used for setting the expectancies. In the first place, when students are provided greater freedom for their individual growth, more information is needed regarding their progress. If the school is to maximize its potential in helping the student to meet his expectancies or use his full potential, information pertaining to the student's performance and his use of his potential is needed. At the present time, the procedure relies heavily upon the student's reporting his own difficulty in applying himself. In this regard wide differences have been noted in student reaction to the opportunity for self-pacing in learning. Although the responsibility for learning is always ultimately with the student, the structure or conditions of the learning environment can have a great deal to do with making the student aware of his responsibility. The Continuous Progress Plan seems to provide a kind of environment in which the student's awareness of his responsibility is greatly heightened. The lock-step system, on the other hand, provides a learning environment in which the student can more readily project the responsibility for learning onto the teacher and by keeping students close together in progress, it reduces the wide difference that will emerge when motivation is allowed a free rein. The lock-step system can help to engender an attitude of "I'll do as little as I have to."

In talking with some of the students in the carrels at BYU Laboratory School, an observer gets the feeling that some of the students are disturbed by the heightened awareness of their own responsibility in the learning process. In fact, several of the students revealed this awareness by expressing a wish to return to the old system where the teacher continually tells them what to do. This heightened awareness of their responsibility was indicated by expressions of guilt about not applying themselves. There seemed to be a consciousness of the fact that it is they themselves and not the teachers that are suffering the greatest loss when this responsibility is ignored.

In short, it seems evident that the learning conditions created by the Continuous Progress Plan will result in an increased need for counseling. As student awareness of the responsibility for learning increases in the presence of poor learning habits and attitudes, students will experience greater conflict and psychological tension. Incidentally, in regard to this point, it is worth noting that counselors trained in client-centered counseling techniques would be most inclined to use a counseling approach consistent with the philosophy underlying the Continuous Progress Plan. If the procedures do not provide for counseling where it is needed, the increase in disturbance may result in the development of maladaptive ways of solving the problem. Thus, if the system is not sensitive to the performance of students and appropriate action is not taken early, the Continuous Progress may mean a negative learning experience for some students.

A Tentative Plan for the Information Processing and Retrieval Subsystem for Guidance.

Generally speaking, various forms of action, such as counseling interviews, group meetings, teacher conferences, and referrals to other agencies, are taken to fulfill the guidance objectives. But the decision to take any action always rests upon information that implies there is a need for action. Two kinds of data are generally used as a basis for making the decision to take action:

1. Student request for help.
2. A decision by school personnel that a student needs help.

Although chances of the action resulting in a satisfactory change in student behavior are greater when the decision that help is needed is made by the student, most systems responsible for the education of children do not rely solely on this means for taking action. Attempts are also made to collect information about student performance and to use these data as a basis for taking some action.

It is assumed that, in the Bassett High School, students will have an opportunity to spontaneously request help, but that the system will also seek to discover which students are in need of help in terms of the criteria implicit in the guidance objectives.

The information-processing system is most important in case 2, the decision by school personnel that a student needs help. Ideally, the system should provide for a continual evaluation of each student's status in terms of his need for help. It should alert the appropriate people that action is required, and should provide the data necessary for understanding the reason that action is needed. It should also provide the information in sufficient time for action to be taken. In addition to sensing the environment, interpreting the information, making decisions to alert appropriate personnel, and transmitting the information, the information-processing system should permit flexible and rapid retrieval of information about student performance and characteristics for other decision-making purposes. Any information-processing system that provides information pertinent to the functions and objectives of guidance will also contain within it or share in common with other subsystems, such as the instructional and administrative subsystems, information pertinent to those subsystems and their objectives. However, the information-processing system discussed in this report will deal only with those aspects related to the guidance function.

The information-processing system will be considered first in terms of the information and the rules of interpretation without considering the hardware requirements. Following this, different hardware and software configurations will be discussed.



In essence, the information-processing system should facilitate the functions of surveillance and detection of trouble. It should maintain an accurate and up-to-date record of each student in relation to the critical questions. In a very general sense the system should function in accordance with the flow diagram in Figure 2. First, the information pertinent to the question is collected (1). Then the information is analyzed (2), and a decision is made about whether the student needs help or not (3). If help is needed, the appropriate personnel are alerted (4), and the information describing the problem is provided (5). If no help is needed in relation to the question, the system carries out the same steps in terms of all of the other questions that need to be asked (6-10). When all the questions have been answered, the cycle is repeated to keep the function updated in relation to new information that may reflect dynamic changes.

#### Analysis of Critical Questions for Guidance Surveillance and Detection System.

In the development of a new system like the Bassett High School, it is impossible to specify in advance all the problems that the school will be interested in detecting. Experience with the real system will result in the discovery of unanticipated problems. From the beginning the information-processing system needs to be conceived as an evolving, changing system that is adaptive to the changes in the structure and function of the system of which it is a part. As new knowledge accumulates, as points of view change, the information-processing system will have to be modified to adapt. In fact, in a very real sense, the information-processing system is a model of the current philosophy, theory, and mode of thinking about the system. It contains, as a very dynamic image, the questions that are considered critical for decision making. It contains the specifications of the information that is considered valid for making decisions. And, it contains the rules of logic that are acceptable for analyzing the data and arriving at decisions. Therefore, just as the philosophy, theory, and ways of thinking about the system change with experience, so will (or so should) the information-processing system. In fact, formal procedures should be instituted to provide for this changing and adapting function.

A note of interest worth making at this point is that, if the information-processing system is thought of as a model of the current thinking about the school, it provides a useful basis for helping personnel in the school system to see and understand what their actual point of view is. It also provides a tool for methodologically studying and revising the point of view. In essence, it provides a more scientific basis for school operation and development because it provides a communicable dynamic definition of the thinking about the system.

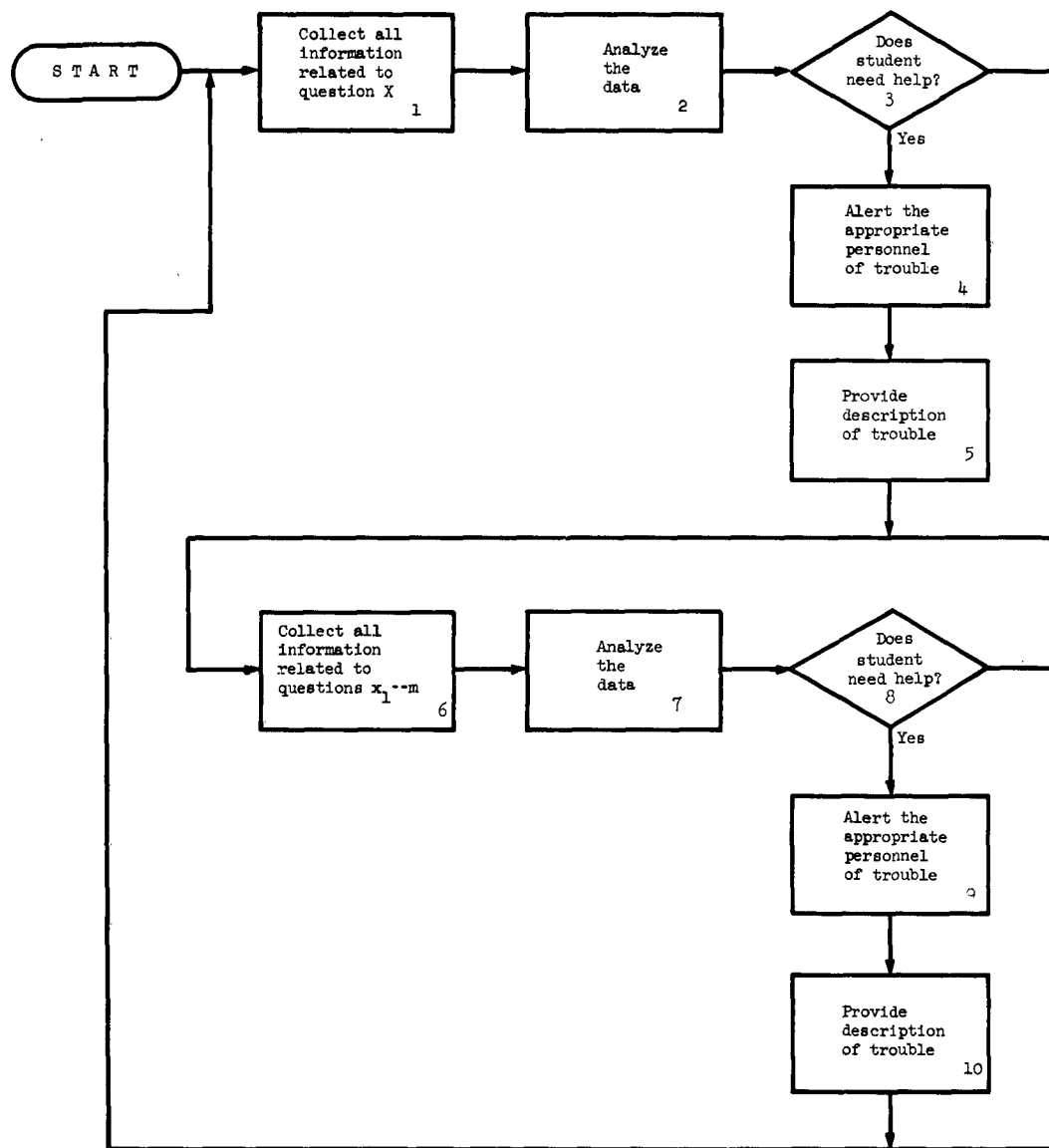


Figure 2. General Flow of Guidance Surveillance and Detection Function

The best basis available for determining the critical questions for guidance is to examine the objectives more carefully. Since, ideally, we are interested in coming as close as possible to maximum achievement of the objectives for each student, these objectives must first be considered in terms of the individual student. In an ideal situation, the objectives of guidance for the school would be achieved when no critical question for any student is answered in the affirmative. In other words, we could operationally define perfect subsystem performance for guidance when the information-processing system makes a complete surveillance (asks all of the critical questions about all of the students), and makes the decision that no students need help. This definition, of course, assumes that all information that is available has been input to the system and that the system is operating reliably. The probability that the ideal state will ever be achieved even for a moment is extremely low. However, a summary count of the number of affirmative decisions (that help is needed) over a constant period of time does provide an objective system measure for evaluating the performance of the system. Changes within the operation of the subsystem, if they are affecting the subsystem positively, should be reflected by a reduction in the number of affirmative decisions. If it is used for evaluation, such a measure must of course take into consideration any changes within the information-processing system. In addition, the accounting must reckon with the persons who are not designated as needing help because they are currently getting help.

The counseling objectives are presented again in Table I to provide a further analysis of the objectives. In the first column of the table, the counseling objectives are listed. In the second column, the system objectives that relate to these counseling objectives are listed.

Most of the counseling objectives relate to two of the total system objectives--the setting of realistic goals and meeting the sociological and psychological needs of students. The information requirements, sources, and users related to the accomplishment of each objective are listed in the third through fifth columns.

In terms of the surveillance and detection system, one of the critical questions to be asked is whether or not the student has made any educational or vocational plans. Figure 3 shows the processing flow necessary for recording, analyzing and transmitting information on the student's setting of goals. The procedure involves the recording of actions taken and provides for alerting appropriate personnel when action needs to be taken.

TABLE I  
Analysis of Counseling Objectives

Counseling Objective	Related System Objective	Information Requirements	Information Source	Communication of Information	Recipient of Information
For student to know his abilities, aptitudes, interests, and limitations.	Setting realistic goals.	Abilities, interests, aptitudes, limitations.	Biographical data from school records--from teachers, students, parents, tests, grades.	Counselor, teacher.	Student.
For student to know job opportunities.	Setting realistic goals.	Library of various job opportunities, local and national. Predictions of changing employment conditions, job requirements, salaries, etc.	Dictionary of occupational titles and a file of information on various occupations.	Counselor, teachers, local representatives from industry, business, and military, placement officer.	Student.
For student to make adequate educational decisions.	Setting realistic goals and working toward them.	Curricular requirements for various fields of specialization, college requirements and norms, and the abilities, interests, aptitudes, inter-ests, and past-school performance of individual students.	Library of college catalogues, etc. Individual biographical data, tests, teacher ratings, grades, school curriculum, data on expectancies.	Counselor, teacher, parent.	Student.

TABLE I (continued)

Counseling Objective	Related System Objective	Information Requirements	Information Source	Communication of Information	Recipient of Information
To make good social adjustment.	Meeting the sociological and psychological needs of students.	Social interests, social problems, social assets.	Student reports, peers ratings, teacher reports, tests.	Counselor.	Student.
To gain insights essential to the attainment and maintenance of satisfactory emotional balance and maturity.	Meeting the sociological and psychological needs of students.	Information relating to psychological adjustment.	Teachers, books, discussion groups, tests, interviews.	Counselor.	Student.

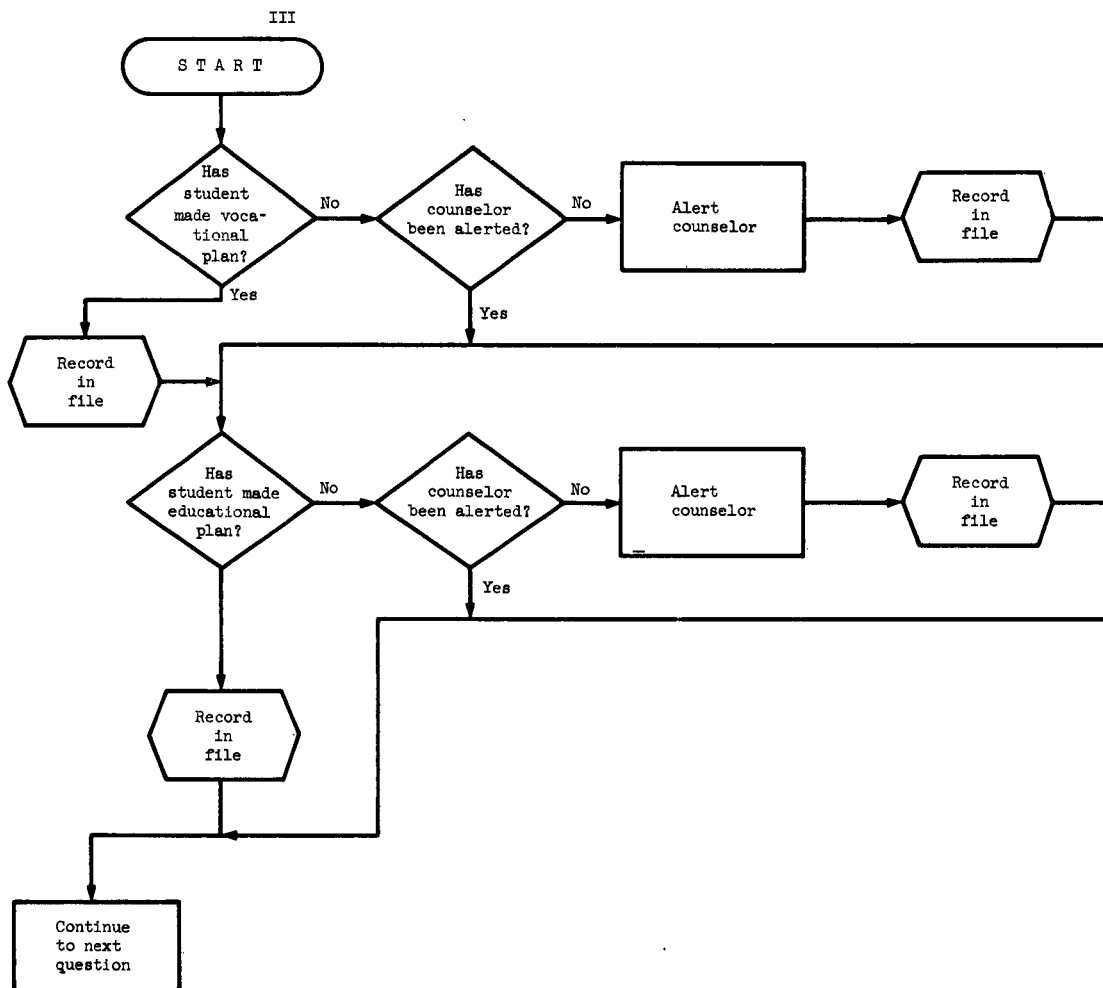


Figure 3. Flow for: Surveillance and Detection, Goal Setting and Vocational and Educational Plan

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#### SUMMARY

This document is a progress report of SDC's work with Bassett School District and Brigham Young University in planning a new high school for the Bassett District. In the document are discussions of (a) the project background, (b) the objectives of the work being done by SDC, (c) procedures being used by SDC, and (d) progress made in the SDC effort.

In addition to gaining general acquaintance with the nature of the educational program, progress thus far has concentrated on developing detailed operational descriptions, via flow charts, of the Counseling Service and the language arts program, checking the accuracy of the Counseling Service description, and working on development of a new, more comprehensive design of the Counseling Service.

Next steps will involve completing design of the Counseling Service, checking the accuracy of the language arts program description, and redesigning the language arts program. Later steps will involve repeating the same "describe, check, and redesign" routine for other academic areas; putting the entire system together, redesigning as necessary; studying the system through computer simulation; making such changes as seem warranted; and documenting and making operational recommendations for the system.

1 April 1963

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(last page)

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System Development Corporation,  
Santa Monica, California  
SYSTEM DESIGN IN THE BASSETT HIGH SCHOOL.  
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R. L. Egbert, J. F. Cogswell. 1 April 1963,  
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Unclassified report

DESCRIPTORS: Education. Data Processing  
Systems.

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Discusses the project background, objectives,  
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comprehensive design of the Counseling  
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involve completing design of the Counseling  
Service, checking the accuracy of the  
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redesigning the language arts program. Also  
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